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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/538,971	06/14/2005	Gerhard Heitze	HM-638PCT	9486
40570 7590 03/27/2007 FRIEDRICH KUEFFNER 317 MADISON AVENUE, SUITE 910 NEW YORK, NY 10017			EXAMINER DONDERO, WILLIAM E	
			ART UNIT	PAPER NUMBER
			3654	

SHORTENED STATUTORY PERIOD OF RESPONSE	MAIL DATE	DELIVERY MODE
3 MONTHS	03/27/2007	PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

# Office Action Summary

Application No.

10/538,971

Applicant(s)

HEITZE ET AL.

Examiner

William E. Dondero

Art Unit

3654

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

## Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

## Status

- 1) ☐ Responsive to communication(s) filed on \_\_\_\_.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

## Disposition of Claims

- 4) ☒ Claim(s) 1-12 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-12 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_ are subject to restriction and/or election requirement.

## Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 14 June 2005 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

## Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_.
3. ☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

## Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO/SB/08)  
Paper No(s)/Mail Date 06/14/2005.
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_.
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: \_\_\_\_.

## **DETAILED ACTION**

### ***Drawings***

The drawings are objected to under 37 CFR 1.83(a). The drawings must show every feature of the invention specified in the claims. Therefore, the outer collars with different diameters (Claim 2) and outside diameters of the outer collars increasing towards the middle of the troughed roller (Claim 4) must be shown or the feature(s) canceled from the claim(s). No new matter should be entered.

Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. The figure or figure number of an amended drawing should not be labeled as "amended." If a drawing figure is to be canceled, the appropriate figure must be removed from the replacement sheet, and where necessary, the remaining figures must be renumbered and appropriate changes made to the brief description of the several views of the drawings for consistency. Additional replacement sheets may be necessary to show the renumbering of the remaining figures. Each drawing sheet submitted after the filing date of an application must be labeled in the top margin as either "Replacement Sheet" or "New Sheet" pursuant to 37 CFR 1.121(d). If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

### ***Claim Objections***

Claim 6 is objected to because of the following informalities: "rough" should be - -troughed- -. Appropriate correction is required.

***Claim Rejections - 35 USC § 112***

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claims 2-5 and 12 rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claim 2 recites the limitation "the bearing surface" in line 2. There is insufficient antecedent basis for this limitation in the claim.

Claim 3 recites the limitation "the support members" in line 2-3. There is insufficient antecedent basis for this limitation in the claim.

Claim 4 recites the limitation "each support member" in line 3. There is insufficient antecedent basis for this limitation in the claim.

Claim 5 recites the limitation "the support members" in 2-3. There is insufficient antecedent basis for this limitation in the claim.

Claim 12 recites the limitation "the contact surface" in line 2-3. There is insufficient antecedent basis for this limitation in the claim.

***Claim Rejections - 35 USC § 102***

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 1-2, 5-6, 11-12 rejected under 35 U.S.C. 102(b) as being anticipated by Rockstrom et al. (US-2985398). Regarding Claim 1, Rockstrom et al. disclose a coiler for rolled strip comprising at least one driven troughed roller 64,65,71,55 for turning a coil during coiling or uncoiling of a rolled strip and a roller table upstream or downstream from the coiler wherein the troughed roller is designed with an elastically deformable outer collar 71, 55 (Figures 1-9). Regarding Claim 2, Rockstrom et al. disclose a bearing surface of the troughed roller is formed by a series of adjoining outer collars 55 of different diameters (when loaded under the force of a coil, see Figure 7) which surround a core 64 of the troughed roller and are uniformly supported in such a way by means of support members 71 that are spring-tensioned (by rubber spring 66, see Column 6, Line 72 – Column 7, Line 37) from the inside against the outer collars that they act on the contact surface of the troughed roller with the coil over its entire longitudinal extent with uniform contact pressure (Figures 1-9). Regarding Claim 5, Rockstrom et al. disclose the support members are mounted in the outer collars with pretensionable spring force (by rubber spring 66, see Column 6, Line 72 – Column 7, Line 37) (Figures 1-9, Column 6, Line 72 – Column 7, Line 37). Regarding Claim 6, Rockstrom et al. disclose to compensate a load-related flexure of the troughed roller, which can be calculated or empirically determined, the outside diameters of the outer collars increase towards the middle of the troughed roller (Figures 1-9). Regarding Claim 11, Rockstrom et al. disclose the troughed roller comprises a solid central shaft 65, a middle collar 64 on the shaft for holding support members that can be spring

tensioned (by rubber spring 66, see Column 6, Line 72 – Column 7, Line 37), and an outer collar 71 with an outer support collar 55 for supporting the load (Figures 1-9, Column 6, Line 72 – Column 7, Line 37). Regarding Claim 12, Rockstrom et al. disclose the contact surface, especially concave contact surface, that forms on the coil during the uncoiling can be automatically adapted to the usually cambered circumference of the coil by means of the elastically yielding outer collars (Figures 1-9).

***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 3 and 4 are rejected under 35 U.S.C. 103(a) as being unpatentable over Rockstrom et al. (US-2985398) as applied to claims 1-2, 5-6, and 11-12 above, and further in view of Cohn (US-2928621). Rockstrom et al. are silent about each support member being lined with a set of disk springs with predeterminable pretensioning and the support members being designed with curved contact surfaces to adapt them to the inner circumference of the outer collars. However, Cohn discloses disk spring 70 with predeterminable pretensioning and a curved contact surface (Figures 5-7). It would have been obvious to one of ordinary skill in the art at the time of the invention to replace the rubber spring of Rockstrom et al. with a set of disk springs of Cohn to hold the outer collars against the coil with a stronger force while maintaining the ability of the collars to flex as the coil grow in size and to adopt the curved shape of the coil.

Claims 7-10 are rejected under 35 U.S.C. 103(a) as being unpatentable over Rockstrom et al. (US-2985398) as applied to claims 1-2, 5-6, and 11-12 above, and further in view of Frye et al. (US-4541585). Regarding Claims 7-8, Rockstrom et al. is silent about the adjoining outer collars being provided with an oblique transition and a slight camber. However, Frye et al. discloses a roller with yieldable outer collars 14 having an oblique transition and a slight camber (Figure 2). It would have been obvious to one of ordinary skill in the art at the time of the invention to add the oblique transition and slight camber of Frye et al. to the outer collars of Rockstrom et al. to allow the collars to expand without interfering with each other under the load of the coil.

Regarding Claims 9-10, Rockstrom et al. are silent about two troughed rollers that can be arranged with a predeterminable axially parallel separation acting together to support the load of the coil wherein at least one of the troughed rollers has a rotational drive. However, Frye et al. disclose two troughed rollers 11,12 that can be arranged with a predeterminable axially parallel separation acting together to support the load of the coil 10 wherein at least one of the troughed rollers has a rotational drive 32 (Figure 1). It would have been obvious to one of ordinary skill in the art to use two of the troughed rollers of Rockstrom et al. with at least one having a rotational drive as taught by Frye et al. to distribute the load of the coil evenly over the two rollers preventing the load from potentially breaking an independent roller as taught by Frye et al.

**Conclusion**


The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Brockman et al. is cited for disclosing a disk spring. Peters et al. and Yermal et al. are cited for disclosing troughed rollers with yieldable outer collars.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to William E. Dondero whose telephone number is 571-272-5590. The examiner can normally be reached on Monday through Friday 7:00 am to 4:30 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Patrick Mackey can be reached on 571-272-6916. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

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